

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER :							
Misidentified ☐	☐	Past Due ☐									

151403

Monday, September 26, 2016 9:20:11 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 9/26/2016 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 10/10/2016 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

0.00

130

Packaging

0.00

Packaging

Memo

Packaging

Identify and pack for shipping as per PPP 646.4002
Location : FG102

DASDAS
28 27
9-89 9-89

OCT 11 2016

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

DAS
21
9-89

OCT 11 2016

DAS
21
9-89

OCT 11 2016

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WORK ORDER NON-CONFORMANCE / UPDATE

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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

Monday, September 26, 2016 9:20:16 AM

Page 1

Work Order ID: 151403

151403

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/26/2016

Required Date: 10/10/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM
16.01.07 DWG REV.C DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3410 *646 3410* LH Wiper Deflector DAS 27 9-89		Manufactured	No				Each	26.0000	**	1		DAS 6 9-89 OCT 06 2016	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				cck010				26					
				125083				14					
				97822				12					
646.3411 *646 3411* RH Wiper Deflector DAS 27 9-89		Manufactured	No				Each	24.0000	**	1		DAS 6 9-89 OCT 06 2016	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				cck010				24					
				125083				10					
				97823				14					
NAS1149F0332P *NAS1149F0332P* Washer DAS 27 9-89		Purchased	No				Each	1,792.000	**	16		DAS 6 9-89 OCT 06 2016	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				282					
				m133709				282					
				ST262				1510					
				m135544				1510					

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Monday, September 26, 2016 9:20:16 AM

Page 2

Work Order ID: 151403

151403

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/26/2016

Required Date: 10/10/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

Each

1,570.000

6

MS21042L3

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

7

M130922

7

GA

261

m134360

112

m135135

149

OVER007

600

m135530

600

ST303

702

m135407

159

m135600

543

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

MS27039-1-19

Purchased

No

Each

83.0000

2

MS27039-1-19

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

82

m134134

82

ST280

1

m135058

1

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

135774

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WORK ORDER NON-CONFORMANCE / UPDATE



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Monday, September 26, 2016 9:20:16 AM

Page 3

Work Order ID: 151403

151403

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 9/26/2016

Required Date: 10/10/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-18

Purchased

No

Each

1,750.000

2

MS27039-1-18

Screw

**

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

245

123522

51

124326

194

over006

1171

124326

1171

ST280

334

124326

334

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

646.3814

Manufactured

No

Each

16.0000

2

646 3814

Wiper Bracket

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

16

125083

16

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

600.1012

Purchased

No

Each

15.0000

1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
27
9-89

05/01/2017

Location

Loc Qty

Loc Code

cck017

15

m135407

1

m135530

8

m135600

6

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

MS24694-S53

Purchased

No

Each

278.0000

2

MS24694-S53

SCREW

**

DAS
27
9-89

Location

Loc Qty

Loc Code

ST284

278

113359

278

DAS
6
9-89

OCT 06 2016

DAS
28
9-89

Monday, September 26, 2016 9:20:16 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____			QTY Effective : _____				MRB (QSI042) Approval		
Description Work Order Deviation					Disposition					Completed By	
Root Cause					FAULT CATEGORY						
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐					
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐					
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐					
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐					
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐					
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐					
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐					
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐					
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐					
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐					
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____								
Misidentified ☐	☐	Past Due ☐									



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR.

MFG

QC

EFF. NEXT ORDER

REASON: REVISED F/N 12.

ECR:
N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151403 MLD
16-09-26

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

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		OTHER : ☐							

F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

[illegible]

0504

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

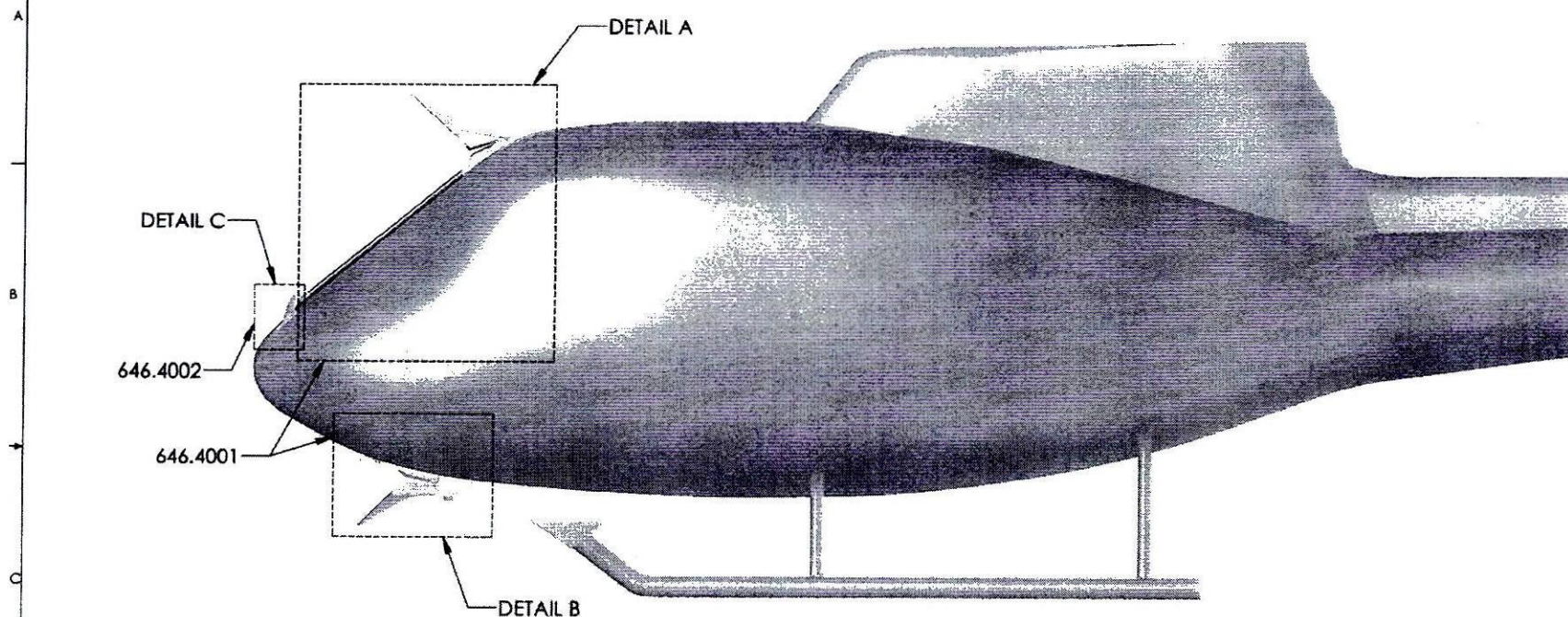


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Misidentified ☐	Past Due ☐																																																																

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ORIGINAL DATE 2/20/08	PP-27-08		3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760) 724-5300
DRAWN BY S. HUBB	CHECKED BY T. BRANCO		
DRAWING APPROVAL P. BRANCO	DATE 08/27/08		
CONTRACT NO.			
AS3530 CABLE CUTTERS KIT			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.005 ANGLES ±.5°			
REV.	DATE	CODE	REV.
B	07/26/08	646.4000	C
SCALE: NONE		SHEET: 2 OF 5	

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
VISTA, CA. 92081
APICAL INDUSTRIES INC.
(760) 724-5300
DBA DART AEROSPACE

AS350 CABLE CUTTERS KIT

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

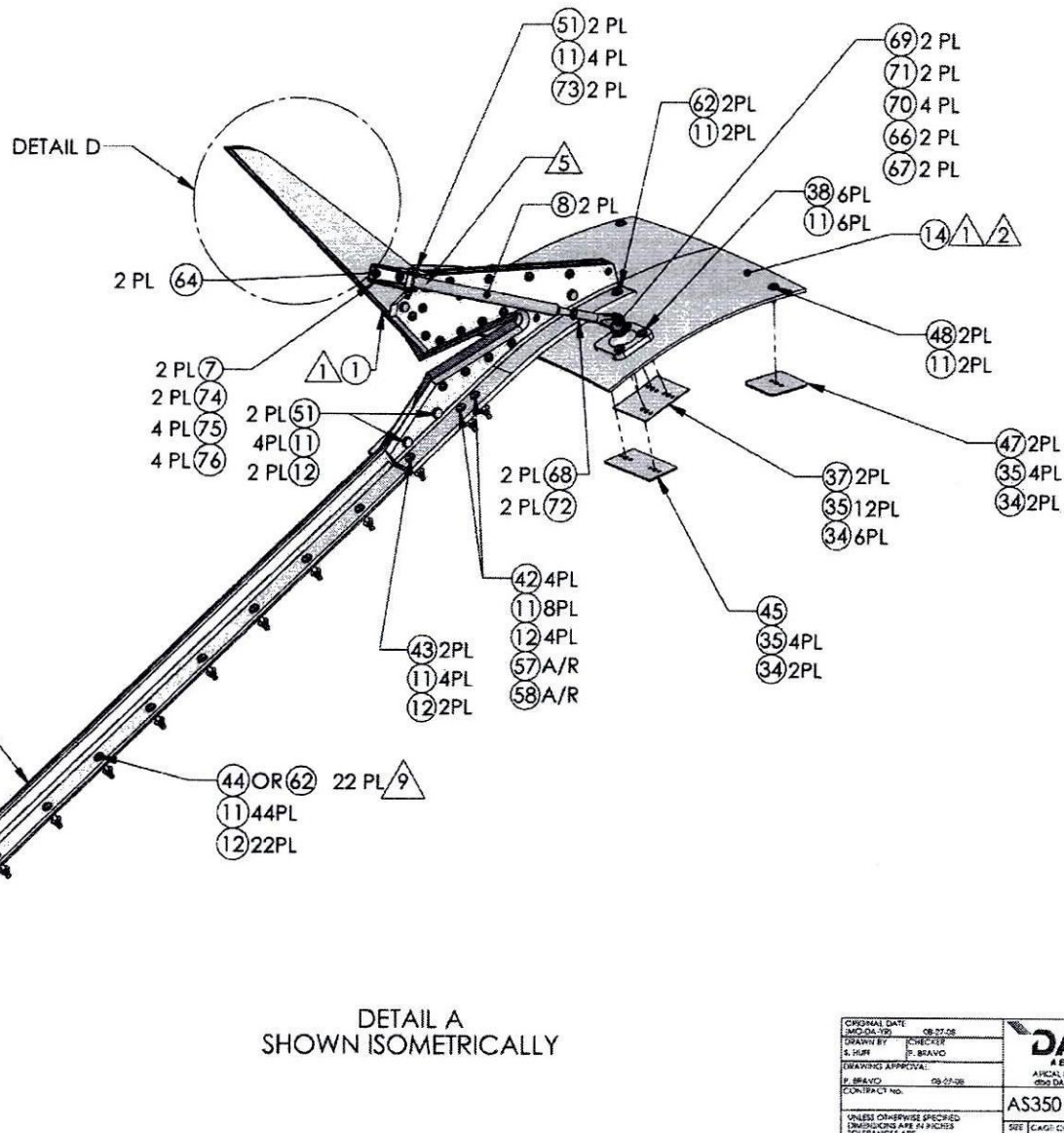
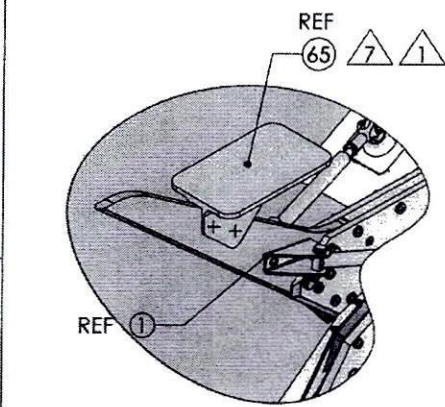


QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					



C/PRIAL DATE (M/D/Y) 04-19-08 C/PRIAL BY S. HUNT P. BRAVO DRAWING APPROVAL P. BRAVO CONTRACT NO.	08-27-08 P. BRAVO 08-27-08	 DART AEROSPACE AIRCRAFT INSPECTION INC. 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300
AS350 CABLE CUTTERS KIT		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACES DECIMALS ±.01 2 PLACES DECIMALS ±.005 ANGLES ±.01		
SIZE SCALE NONE	CAGE CODE D72M26	DRAWING NO. 646.4000
SHEET 3 OF 5		REV C

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



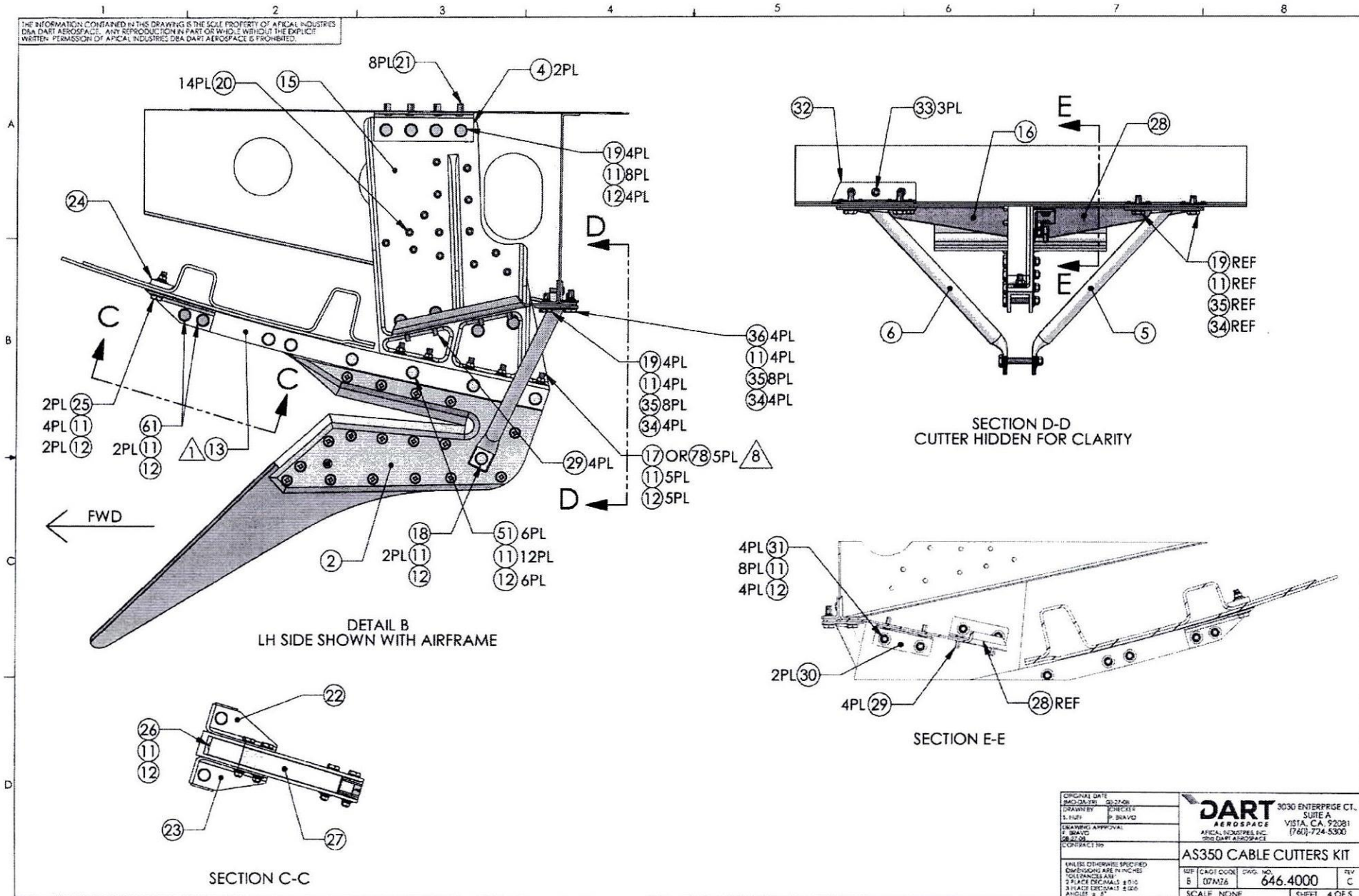
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 			
Description Work Order Deviation				Disposition							
								Completed By			
								Lead hand / Supervisor Approval Verification			
								QC / QA Coordinator Approval			

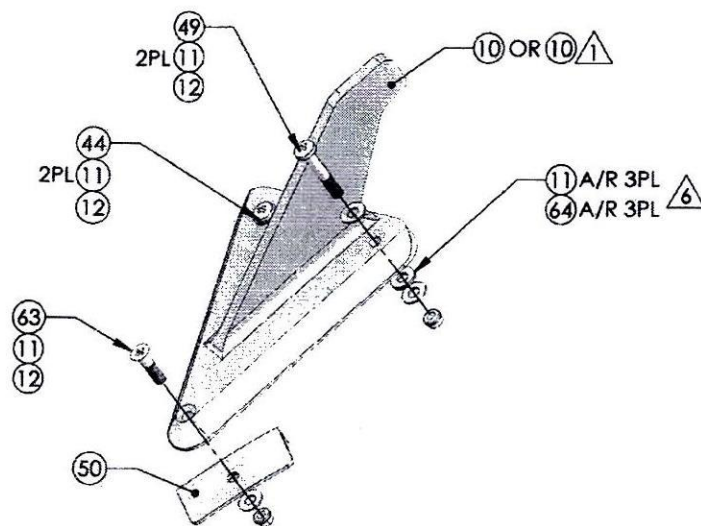
Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

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DIA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF AFICAL INDUSTRIES OR DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE	10/20/10	DESIGN	
DRAWN BY	FORECKER		
1. FILED			
DRAWING APPROVAL	P. BRAVO		
1. BRAVO			
2. CONTRACT			
DART AEROSPACE 3030 ENTERPRISE CT., SUITE A, VISTA, CA 92081 (760) 724-5300			
AS350 CABLE CUTTERS KIT			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES: TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.0°	REV	DATE	REV
5	07/26	646.4000	C
SCALE NONE	SHEET 4 OF 5		

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DETAIL C
 LH SHOWN EXPLODED
 RH OPPOSITE

ORIGINAL DATE NOV-04-1991 08-27-08		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HUNT		CHECKED BY P. BRAVO	
DRAWING APPROVAL P. BRAVO 08-07-08		APICAL INDUSTRIES, INC. DSG DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.005 ANGLES ± 1°		SIZE B 07M26	QTY. NO. 646.4000
SCALE NONE		REV. C	
		SHEET 5 OF 5	

Quality Control

REFERENCE ONLY

DAS
27
9-89

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NOTES:

- 1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILET EDGES.
- 2 INSTALL F/N 14 WITH F/N 52 & 53.
- 3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651
- 4 3M TAPE PRIMER 94. APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N D21200-24216.
- 5 REUSE FASTENERS FROM F/N 1.
- 6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT
- 7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
- 8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE
SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 76
SCREW IN PLACE OF F/N 17 SCREW.
- 9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY
REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 &
F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	AS11149F0432P				
1	1	1	77	646.9410	SHIM	AS11149F0432P				
	4	4	76	601.2764	WASHER	MS21042-08				
	2	2	75	601.2973	LOCKNUT	MS21039-0B15				
	2	2	74	601.2988	SCREW	MS21042-3				
	2	2	73	601.2943	LOCKNUT	AN316CAR				
	2	2	72	601.3128	NUT	MS21042-4				
	2	2	71	601.3209	LOCKNUT	AS11149F0432P				
	4	4	70	601.2638	WASHER	AN4C7A				
	2	2	69	601.2669	BOLT	AN461-3AR				
	2	2	68	601.3119	CLEVIS	AN4A-5A				
	2	2	67	601.3121	EYE BOLT					
	2	2	66	650.9201	EYE BRACKET ASSY					
REF	REF	REF	65	647.5701	GPS MOUNT KIT					
		2	64	601.3151	WASHER	AS11149F0432P				
			63	601.2911	SCREW	MS2446R050				
	24	24	62	601.2637	SCREW	MS27039-1-4				
	2	2	61	601.2763	BOLT	AN3-12A				
	1	1	60	646.3913	SHIM					
	4	4	59	646.3912	SHIM					
	1	1	58	646.3911	SHIM					
	4	4	57	646.3910	SHIM					
	5	5	56	600.1013	PRIMER					
8 FT	8 FT	55	600.0129	VHB TAPE		PG-14251143B				
	1	1	54	600.1012	SEALANT					
	1	1	53	600.0991	MAGNOROND 6398 PART B					
	1	1	52	600.0990	MAGNOROND 6398 PART A					
	6	10	51	601.2826	BOLT	AN3-17A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS27039-1-18				
	2		48	601.1365	SCREW	MS27039-1-10				
	2		47	646.3719	DOUBLER					
	2		46	646.3718	CUSTOM WASHER					
	1		45	646.3717	DOUBLER					
	22	22	44	601.1948	SCREW	MS27039-1-19				
	2		43	601.1952	SCREW	MS27039-1-20				
	4		42	601.1956	SCREW	MS27039-1-21				
4004	4003	4004	4001	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV	DESCRIPTION	DATE	APPROVED
1	INCORPORATED ECN 02189, 02191 & 02193	02/08/2018	P. BRAVO
2	INCORPORATED ECN 02046, 02047 & 02049	11/04/2018	P. BRAVO
3	INCORPORATED ECN 02046	10/09/2018	P. BRAVO

		2	2	41	601.2829	SCREW	MS24654554			
		2	2	40	601.2831	RIVET	MS24654557			
		1	1	39	646.3716	GAUGE BRACKET				
		6	6	38	601.1953	SCREW	MS24039-1-12			
		2	2	37	646.3715	STRUT DOUBLER				
	2	2	2	36	601.2824	BOLT	AND 3A			
12	36		36	35	601.2277	RIVET	MS24654559			
6	18		18	34	600.0795	NUTPLATE	MS24039-1-12			
3	3		3	33	601.2565	RIVET	MS24039-1-12			
1	1		1	32	646.3813	STRUT BRACKET				
4	4		4	31	601.2822	BOLT	AND 3A			
2	2		2	30	646.3812	GUSSET BRACKET				
8	8		8	29	601.2564	RIVET	MS24039-1-12			
1	1		1	28	646.3714	GUSSET				
	1	1	1	27	646.3610	FILLER				
	3	3	3	26	601.2830	SCREW	MS24654555			
	2	2	2	25	601.2825	BOLT	AND 4A			
	1	1	1	24	646.3811	RADIUS BLOCK				
	1	1	1	23	646.3712	CLIP				
	1	1	1	22	646.3711	CLIP				
8	8		8	21	601.2832	RIVET	MS24039-1-12			
14	14		14	20	601.2020	RIVET	CR320-3-3			
4	6	4	6	19	601.2823	BOLT	AND 4A			
	1	1	1	18	601.2827	BOLT	AND 13A			
	5	5	5	17	601.2912	SCREW	MS24654551			
1	1		1	16	646.3713	GUSSET				
1	1		1	15	646.3210	SUPPORT				
	1		1	14	646.3710	DOUBLER				
	1		1	13	646.3110	CHANNEL				
14	10	8	53	61	12	601.1624	LOCKNUT	MS21042-3		
16	32	18	120	16	11	601.1607	WASHER	MS11400022P		
				10		646.3410	LH WIPER DEFLECTOR			
				9		646.3411	RH WIPER DEFLECTOR			
		2		2	8	647.7703	STRUT ASSY			
		2		2	7	647.0112	STRUT BRACKET			
		1		1	6	646.3511	STRUT			
		1		1	5	646.3510	STRUT			
2		2		2	4	646.3810	BRACKET			
					3	646.2910	DEFLECTOR			
	1		1		2	646.3001	LOWER CUTTER ASSY			
					1	646.3301	UPPER CUTTER ASSY			
X						646.4006	LOWER CUTTER FIXED PROVISIONS			
	X					646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
		X				646.4004	FIXED PROVISIONS KIT			
			X			646.4003	CABLE CUTTERS KIT WITHOUT TORED PROVISIONS			
				X		646.4002	AS350 WIPER DEFLECTION KIT			
				X		646.4001	AS350 CABLE CUTTERS KIT			
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY	DESCRIPTION	DATE	APPROVED
NEXT ASSY (S)	DESCRIPTION	DATE	APPROVED
DART 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300			
AS350 CABLE CUTTERS KIT			
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